AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A <u>Sub Sequence Net (SN), comprising</u> ~~Sub Sequence Net (Sub SN),~~ ~~which comprises~~:

   ~~a sequence net~~ <u>an SN</u> including N+1 <u>branch</u> programs <u>respectively running on N+1</u> <u>computers</u> and <u>a</u> distributed data ~~tokens~~ <u>token</u>; [[and]]

   ~~N+1 return instructions~~ <u>wherein each of the N+1 branch programs includes a return</u> <u>instruction, and wherein N is a positive integer.</u>

2. **(Currently Amended)** The Sub SN of Claim 1, wherein a call instruction of [[said]] <u>the</u> Sub SN is a single machine <u>SN calling</u> instruction.

3. **(Currently Amended)** The Sub SN of Claim 2, wherein [[said]] <u>the</u> call instruction calls [[said]] <u>the</u> Sub SN by activating a ~~calling~~ Sub SN <u>calling</u> device.

4. **(Currently Amended)** The Sub SN of Claim 3, wherein ~~said calling~~ <u>the</u> Sub SN <u>calling</u> device comprises a calling bus device for establishing a connection between [[said]] <u>a</u> call position of <u>a</u> single machine and [[said]] <u>the</u> Sub SN.

5. **(Currently Amended)** The Sub SN of Claim 4, wherein ~~said calling~~ <u>the</u> Sub SN <u>calling</u> device is ~~initiated~~ <u>activated</u> by [[a]] <u>the</u> single machine ~~sequence net call~~ <u>SN calling</u> instruction<u>;</u>

   ~~whose call parameters is transmitted~~ <u>a calling parameter of the single machine SN calling</u> <u>instruction is broadcasted</u> to N+1 units <u>associated with the N+1 computers and is</u> ~~by~~ ~~broadcasting, the call parameters are~~ used as a [[call]] <u>calling</u> entry address of <u>the</u> N+1 branch programs of [[said]] <u>the</u> Sub SN<u>;</u>[[,]]

   <u>an on-site protection is performed when each of</u> the N+1 branch programs <u>is entered;</u> ~~are on~~ ~~site protection~~ and

   <u>each of the N+1 branch programs is exited by the return instruction</u> ~~exit by return~~ ~~instructions~~.

6. **(Currently Amended)** The Sub SN of Claim 4, wherein ~~said calling~~ the Sub SN calling device comprises an activating device for transferring the single machine SN calling ~~instructions~~ instruction from ~~a sequence net call instruction of~~ a serial single machine to the parallel N+1 ~~parallel~~ branch programs.

7. **(Currently Amended)** The Sub SN of Claim 4, wherein ~~said means for calling~~ the Sub SN calling device comprises a ~~call~~ contention device for processing a ~~number~~ plurality of ~~requests~~ simultaneously occurred requests.

8. **(Currently Amended)** The Sub SN of Claim 4, wherein ~~said means for calling~~ the Sub SN calling device comprises ~~an interrupt initiation~~ a device for transmitting a calling parameter from serial to parallel and for activating parallel interrupts ~~call parameters from serial program to parallel programs, and a paralleled interrupt initiation device.~~

9. **(Currently Amended)** A Sub Sequence Net (SN) ~~Sub-Sequence Net (Sub-SN)~~ calling system for calling the Sub SN according to Claim 1, ~~which comprises~~ comprising:

   ~~a plurality of~~ N+1 computers, for running the N+1 branch programs of the Sub SN;

   ~~a plurality of sequence net call~~ N+1 SN calling devices, for handling call contentions, ~~saving sequence net call~~ storing SN calling parameters, and identifying SN calling ~~sequence net call~~ instructions; and

   a group of buses, for connecting the ~~sequence net call~~ SN calling devices together, the group of buses comprising:

   a call ~~initiating~~ activating bus, for receiving a ~~initiating~~ an activating level sent by one of the SN calling devices ~~call device of said sequence net~~;

   a ~~group of~~ data bus ~~buses~~; and

   a shared clock bus.

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10. **(Currently Amended)** The Sub SN [[call]] calling system of Claim 9, wherein each of the SN calling devices sequence net call device comprises:

a call request requesting device, for receiving an SN calling instruction sequence net call instructions, generating a initiating an activating level [[in]] at a next clock pulse, and delivering the initiating activating level to the call activating said initiating bus;

a call contention device, for arbitrating a call of [[the]] a highest priority as valid;

a call parameters parameter and interrupt device devices, for determining a source of sequence net call parameters an SN call parameter based on outputs an output of [[said]] the call contention devices device, and sending [[a]] an interrupt level to an associated computer via said bus.

11. **(Currently Amended)** The Sub SN [[call]] calling system of Claim 10, wherein each of the SN calling said sequence net call device further comprises a registering and comparing device, for storing a local weight register of this machine, and comparison devicefor saving for comparing the local weight of this machine with the highest a global weight of requests in order to determine if this machine whether the respective SN calling device is the source of the SN calling parameter sequence net call parameters.

12. **(Currently Amended)** The Sub SN [[call]] calling system of Claim 11, wherein the registering and comparing device further comprises said register and comparison devices further comprising a system grade register and a request grade register, when said sequence net call the SN calling device receives a grade calling request an request of grade call, if [[the]] an output of [[said]] the request grade register is greater than [[the]] an output of [[said]] the system grade register, the registering and comparing device generates a permission signal to the call requesting device, so that [[said]] the call request requesting device generates a initiation the activating level to said initiation the activating bus, and when whereas the output of [[said]] the request grade register is smaller than or equal to the output of [[said]] the system grade register, the said register and comparison devices do registering and comparing device does not generate [[said]] the permission signal and thus no initiation activating level is generated.

13. (**Currently Amended**) The Sub SN call system of Claim 10, wherein the ~~said register and comparison devices~~ registering and comparing device further comprises a sequence [[call]] calling register ~~(named next register)~~ indicating [[the]] a next sequence calling device number ~~right of sequence call~~, when ~~said sequence net call~~ the SN calling device receives a sequence [[call]] calling request, [[the]] an output of ~~said next~~ the sequence calling register is compared with a local device number ~~said right of this machine (usually number of this machine)~~, if the comparison result ~~indicates that the output of said next register and said right of this machine is same, a initiation~~ is "the same," the activating level is generated, otherwise, ~~a initiation~~ no activating level is [[not]] generated.

14. (**Currently Amended**) A method for calling ~~Sub Sequence~~ the Sub Seqence Net (Sub SN) of Claim 1 using the Sub SN calling device of Claim 9, comprising ~~which comprises: sequence net including N+1 programs and a distributed data token structure; and N+1 return instructions, wherein said Sub SN includes a plurality of computers and a plurality of sequence net call devices; the call instruction calls said Sub SN by activating at least one sequence net call device of said sequence net call devices, wherein the method comprises~~ the following steps:

a) ~~said sequence net call~~ one or more SN calling devices ~~instructions for calling the sequence net~~ receiving one or more SN calling instructions from ~~the plurality of~~ one or more computers, respectively;

b) each of the SN calling devices which receives the SN calling instructions sending an activating ~~sequence net call device of said received sequence net call instruction sends a initiation~~ level via ~~a initiation~~ the activating bus to all the other SN calling ~~sequence net call~~ devices;

c) when each of the SN calling devices which receive the SN calling instructions ~~sequence net call device of said receiving sequence net call instruction~~ detects ~~said initiation~~ the activating level on the activating ~~existed in said initiation~~ bus, each of the SN calling devices which receive the SN calling instructions sending its local ~~sequence net call device of said receiving sequence net call instruction sends the~~ weight ~~of this machine~~ to [[said]] the data bus,[[;]] then [[the]] a global weight ~~of entire system~~ formed on the [[said]]

data bus [[is]] being written in a temporary register of each of the SN calling devices by said sequence net call device; and

  d) each of the SN calling devices which receive the SN calling instructions comparing a sequence net call device of said receiving sequence net call instruction compares the highest valid bit (=1) of register (hereinafter as HVBOR) of the temporary register with [[the]] its local weight of this machine, if the comparison result is "the same," the call of the respective SN calling said sequence net call device is valid, otherwise, the call of the respective calling device is invalid, for valid comparison and invalid for an invalid comparison; at least one call from one of the SN calling devices which receive an SN calling instructions is made by sequence net call device of receiving sequence net call instruction will be valid.

15. (**Currently Amended**) The call method of Claim 14, wherein [[the]] step [[b)]] c) comprises the steps of an "or" operation of the local weights sent of machines sending by the SN calling devices which receive SN calling instructions sequence net call device of said received sequence net call instruction, to produce form the global weight of entire system.

16. (**Currently Amended**) The call method of Claim 14, further comprising the following step between step a) and step b): at least one computer of the N+1 computers sending a grade [[call]] calling instruction for supporting different importance grades of system is generated by at least one computer.

17. (**Currently Amended**) The call method of Claim 16, further comprising [[the]] a step of [[said]] the at least one computer writing a request grade of the called Sub SN into [[the]] a request grade register of said sequence net call the SN calling device prior to said before the at least one computer sending said sends the grade [[call]] calling instruction.

18. (**Currently Amended**) The call method of Claim 17, further comprising the steps a step of comparing the [[said]] request grade with the HVBOR of a system grade, wherein if the request grade is lower than or equal to said current the system grade, then [[said]] the grade [[call]] calling request is not accepted, and if the request grade is higher than [[said]] the

current system grade, then [[said]] the grade [[call]] calling request is accepted, and the initiation activating level is generated at [[the]] step b) by the sequence net call SN calling device.

19. (**Currently Amended**) The call method of Claim 18, further comprising the following steps between [[the]] step b) and [[the]] step c):

b1) on the activating said initiation bus, an "or" operation being performed on the activating levels from the SN calling devices which receive the SN grade calling instructions said initiation level of sequence net call device of sequence net grade call instruction received is operated and the result of the "or" operation [[is]] being delivered to all the said sequence net call SN calling devices;

b2) when each of the SN calling devices which receive the SN grade calling instructions sequence net call device of said received sequence net call instruction detects an activating that a initiation level exists in said initiation on the activating bus, each of the SN calling devices which receive the SN the said sequence net call device control of received sequence net grade calling instructions sending its local call instruction send a request grade of this machine to [[said]] the data bus, then entire system a global request grade formed on the of said data bus [[is]] being written into the temporary register by each of the SN calling via said all sequence net call devices;

b3) each of the SN calling devices which receive the SN grade calling instructions comparing the global request in the HVBOR of temporary register is compared with its local request grade by sequence net call device of said received sequence net grade call instruction, and if the comparison result is "the same," the grade call of the SN calling device is valid the equality of comparison denotes a valid grade call of the sequence net call device; and

b4) the HVBOR of said writing the highest bit of the temporary register is written into [[the]] a system grade register of each of the SN calling devices said all sequence net call device so that a new HVBOR of the system grade is recorded.

20. (**Currently Amended**) The call method of Claim 14, further comprising the following step
between step a) and step b): at ~~lease~~ least one computer of the N+1 ~~plurality of~~ computers
~~sends~~ sending a sequence [[call]] calling request instruction of the SN for supporting ~~ordered~~
sequenced events of a program processing and a complicated program ~~structures~~ structure.

21. (**Currently Amended**) The call method of Claim 20, further comprising [[the]] a step of
designating a next sequence calling device number in a ~~call by writing the~~ next register of
each of the SN calling ~~all sequence net call~~ devices.

22. (**Currently Amended**) The call method of Claim 21, further comprising the following steps
between [[the]] step b) and [[the]] step c):

    b')   each of the SN calling ~~said multiple sequence net call~~ devices receive the ~~a~~
~~request of~~ sequence [[call]] calling request instructions from [[said]] the at least one
computer; and

    b") comparing the next sequence calling device number ~~register (usually the next~~
~~number of machine)~~ with ~~the right (usually the number) of this machine~~ a local device
number, if the comparison result is "the same," the [[said]] sequence [[call]] calling request
instruction is allowed ~~for an affirmative comparison~~ and the activating level is sent to the
activating bus, otherwise, the device number of the sequence call request ~~of sequence net~~
~~call device should be~~ is invalid and no ~~initiation~~ activating level is ~~will be~~ sent to ~~said~~
~~initiation~~ the activating bus.

23. (**Currently Amended**) The call method of Claim 22, further comprising the following steps
between [[the]] step c) and [[the]] step d):

    c')   the SN calling devices which receive the sequence calling request
instructions sending sequence call feature data ~~is sent~~ to the data bus ~~by sequence net call~~
~~device which has received sequence net call instruction~~;

    c") the SN calling devices which receive the sequence calling request instructions
writing the content on the ~~data on~~ data bus ~~is written to a~~ into the temporary register ~~by~~
~~sequence net call device of said received sequence net sequence call instruction~~, and
checking the data in the temporary register for determining whether a [[the]] sequence

[[call]] calling feature is ~~satisfied~~, if it is satisfied, it is determined there is a ~~examined for~~ ~~checking the existence of~~ grade call, ~~i.e. the validity of said~~ otherwise, it is determined there is a sequence call.

24. (**New**) The Sub SN of Claim 1, wherein the distributed data token comprises a consistency token instruction, a source data token instruction, and a target data token instruction, wherein the source data token instruction and the target data token instruction are used by the 1st to Nth branch programs, and the consistency token instruction is used by the N+1th branch program.